

Appl. No. 10/668,819

Amdt. Dated February 17, 2005

Reply to Office Action of November 29, 2004

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This is a full and timely response to the non-final Office action mailed November 29, 2004. Reexamination and reconsideration in view of the foregoing amendments and following remarks is respectfully solicited.

Claims 1-20 remain pending in this application, with Claims 1, 11, and 17 being the independent claims. Claims 1, 11, and 17 have been amended herein. No new matter is believed to have been added.

Objections to the Specification/Disclosure

The disclosure was objected to due to a minor informality. Specifically, reference numeral "208" was used twice. In response, Applicants have amended as-filed paragraph [0020] to omit reference numeral "208" as designating the inner surface of the recess.

The specification was additionally objected to under 37 C.F.R. 1.75(d)(1) as allegedly failing to provide proper antecedent basis for the subject matter of Claims 1, 2, 8, 11, 12, 16, and 17. Specifically, the Office action alleges that the specification fails to provide antecedent basis for the plug outer surface, the backup ring being coupled to the seal, and the seal being configured to bias the segment seal main body away from the plug outer surface. The Office action further alleges, citing M.P.E.P. § 608.01(o) that "claim terminology in mechanical cases should appear in the descriptive portion of the specification by reference to the drawings." Office action at 3.

In response, Applicants submit that 37 C.F.R. § 1.75(d)(1) and M.P.E.P. § 608.01(o) are being misread and misapplied to the instant application. In particular, 37 C.F.R. § 1.75(d)(1) states that "the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." See 37 C.F.R. § 1.75(d)(1) (emphasis added). Moreover, M.P.E.P. 608.01(o) states that "[t]he meaning of every term used in any of the claims should be apparent from the descriptive portion of the specification with clear disclosure as to its import; and in mechanical cases, it should be identified in the descriptive portion of the specification by reference to the drawing, designating the part or parts therein to which the term applies." See M.P.E.P. 608.01(o)

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(emphasis added). These rules and guidelines do not require that each and every term that denotes structure be used in a verbatim sense, nor that each term has to have a specific reference numeral in the drawings. Rather, Applicant submits that the intent of Rule 75 and M.P.E.P. § 608.01(o) is that the description be written so that terms used in the claims are *readily ascertainable* and that, especially in mechanical-type cases, the part to which claim terms apply are identified.

As regards the “plug outer surface,” Applicant submits that this term finds clear support in the specification based on its usage in at least paragraphs [0007] and [0008]. Moreover, even if the term “plug outer surface” were not used *in haec verba* in the descriptive portion, the descriptive portion and the drawings clearly designate the plug using reference numeral “104” and, as with any tangible element, the plug clearly has an outer surface. Including a statement in the descriptive portion of the specification that the plug includes an outer surface, perhaps along with a separate reference numeral in the drawings, would simply be redundant to what is already clearly shown in the drawings. In accordance with the true meaning of Rule 1.75 and M.P.E.P. § 608.01(o), the description and drawings clearly designate the part (i.e., plug 104) to which the term “outer surface” applies, and the meaning of this term is readily ascertainable therefrom. Forcing Applicant to amend the descriptive portion and/or drawings of the instant specification is merely an elevation of form over substance, and wholly bypasses the intent of Rule 1.75 and the clear meaning of what is delineated in M.P.E.P. § 608.01(o).

As regards the use of the term “coupled” in Claims 2 and 12, reference should be made to FIG. 6, and the accompanying descriptive portion in paragraph [0023]. As is clearly shown in FIG. 6, a backup ring (602) is disposed adjacent to, and in contact with, a seal (406). This clearly depicts a configuration that falls within the subject matter of Claims 2 and 12 in that the term “coupled” is a fairly broad term that encompasses, among other things, two or more elements in abutting contact.

As regards Claims 8 and 16, Applicants submit that the paragraph [0021], lines 5-7, in combination with paragraph [0023], lines 9-11 clearly discloses the subject matter of these claims. In particular, paragraph [0021] explicitly delineates that the spring element (416) biases the segment seal assembly (106) toward the fluid outlet (110). Then, in

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paragraph [0023], the disclosure states that the seal (406) could be configured such that the segment seal assembly (106) could be installed without the spring element (416). Clearly, based on the description, the reason that the spring element (416) could be eliminated in some instances is because the seal (406) could itself bias the segment seal assembly (106) toward the fluid outlet (110).

In view of the foregoing, withdrawal of the objection to the disclosure is requested.

Objections to the Drawings

The drawings were objected to under 37 C.F.R. § 1.83(a) as allegedly failing to show features recited in Claims 2, 9, and 12. In response, Applicants wish to note that 37 C.F.R. § 1.83(a) should be read in conjunction with 37 C.F.R. § 1.81(a), to prevent one of these rules from being rendered wholly superfluous. More specifically, Rule 181 states that an "applicant for a patent is required to furnish a drawing of his or invention *where necessary for the understanding of the subject matter sought to be patented.*" See 37 C.F.R. § 1.81(a) (emphasis added).

As regards Claims 2 and 12, it was noted above that FIG. 6 clearly shows a backup ring (602) disposed adjacent to, and in contact with, a seal (406). This clearly depicts a configuration that falls within the subject matter of Claims 2 and 12 in that the term "coupled" is a fairly broad term that encompasses, among other things, two or more elements in abutting contact.

As regards Claim 9, in paragraph [0025], lines 8-11, the description clearly states that the segment seal assembly could be disposed adjacent to the valve body inlet 108. Applicant submits that, in accordance with 37 C.F.R. § 1.81(a), a drawing is not necessary for the understanding of the subject matter of Claim 9.

In view of the foregoing, reconsideration and withdrawal of the drawing objections is respectfully requested.

Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 1-20 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter that was not adequately described in the specification. In

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particular, the Office action alleges that the recitation that the "sealed vent region has a cross sectional area that is substantially equal to or less than the defined cross sectional flow area," which is found in each of independent Claims 1, 11, and 17, is not disclosed. Applicant respectfully traverses this rejection.

It is well-settled that the written description requirement is met if an applicant conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the claimed invention. Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). Moreover, the test of sufficient support is whether the disclosure readily conveys to a person of ordinary skill in the art that the applicant invented the claimed subject matter. In re Gosteli, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989).

Clearly, the specific subject matter of Claims 1, 11, and 17 that the Office action alludes to is adequately described in the specification. One need only look to paragraph [0022], lines 7-12, and FIG. 2, to see that this specific feature is disclosed. As such, this particular claim feature is disclosed and Claims 1-20 do meet the written description requirement.

In addition to the above, the Office action appears to take issue with the discussion in paragraph [0022], lines 12-16, and paragraph [0026], lines 1-3, of the specification. It appears from this portion of the Office action, that the Examiner actually intended to perhaps make an enablement rejection under 35 U.S.C. § 112, first paragraph, since the line of argument seemingly alleges that what is described is not physically possible. Yet, what this has to do with this particular claimed subject matter is superfluous. Claimed subject matter is enabled if any person skilled in the art can, based on the disclosure, make and use the invention without undue experimentation. In re Wands, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988). Clearly, a person of less than ordinary skill in the art, let alone an ordinarily skilled artisan, can pick up the instant application and make and use the claimed invention.

In view of the foregoing, Applicant submits that the rejection under 35 U.S.C. § 112, first paragraph is unfounded and should be withdrawn.

Before proceeding further, Applicant does feel compelled to address the

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Examiner's concern with the passages in paragraphs [0022] and [0026]. In particular, on page 4 of the Office action, the Examiner states that if the cross sectional flow area (210) of the valve body outlet (110) were significantly larger than the cross sectional area (208) of the vent region (418), then there would not be any reduction in differential pressure load across the segment seal, and it would instead be increased. The Examiner further alleges that the valve body outlet (110) has no pressure relative to an inlet.

What the Examiner means by the last statement is unclear. Moreover, the undersigned cannot discern what relevance this statement has to the claimed invention. As regards the relative sizes of the valve body outlet and vent region cross sectional flow areas, it is unclear what relevance this has, too. Although the Examiner may disagree with a particular result that is delineated in the application, this does not render the claimed invention either not fully described or fully enabled. Indeed, whether the Examiner agrees that providing a vent region having a cross sectional area that is less than the cross sectional flow area of the outlet provides the described resultant net force has no bearing whatsoever on whether the claimed structure can be made and used.

Nonetheless, the fact of the matter is, because the vent region (418) is in fluid communication with the valve outlet (110), the pressure between the two regions will be equal. However, the pressures acting on the surface areas of these two regions are not the only forces being applied to the segment seal assembly main body (402) to provide the resultant net force. First, fluid leaks around the plug (104) and into the recess (204) between the segment seal main body and the plug outer surface. However, the seal (406) keeps this fluid from entering the vent region (418). The pressure from this fluid supplies a force that acts to push the segment seal main body (402) toward the outlet (110). Second, the spring (416) and/or the seal (406) also supply a force that acts to push the segment seal main body (402) toward the outlet (110). The forces due to fluid pressure on both sides of the segment seal assembly main body, together with the force supplied from the spring and/or the seal, supply the resultant net force.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claim 11 was rejected under 35 U.S.C. § 112, second paragraph as allegedly

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being indefinite. Specifically, the Office action alleges that the claim is unclear as to whether the valve body forms part of the claimed invention. In response, Applicant has amended Claim 11 to even more clearly indicate any interaction with the valve body occurs only when the valve is mounted in the valve body.

In view of the above, reconsideration and withdrawal of the § 112, second paragraph rejection is requested.

Rejections Under 35 U.S.C. § 102

Claims 1-3 and 5-16 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by U.S. Patent No. 2,506,097 (Melichar). This rejection is respectfully traversed.

Independent Claims 1 and 11 each recite that the sealed vent region has a cross sectional area that is less than the defined cross sectional flow area of either the valve body fluid inlet or outlet. Melichar, on the other hand, discloses a vent region cross sectional area that is, at a minimum, equal to the cross sectional flow area of the valve body fluid ports.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the § 102 rejections.

Rejections Under 35 U.S.C. § 103

Claims 4 and 17-20 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Melichar, and U.S. Patent No. 3,479,006 (Brown). This rejection is respectfully traversed.

Independent Claim 17 additionally recites that the sealed vent region has a cross sectional area that is less than the defined cross sectional flow area of either the valve body fluid inlet or outlet. As was noted above, Melichar fails to disclose (or even remotely suggest) this feature. Moreover, Applicant further submits that Brown fails to disclose or even remotely suggest at least this feature. As such, the combination of Melichar and Brown fails to teach the subject matter of at least independent Claims 1, 11, and 17.

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In view of the foregoing, reconsideration and withdrawal of the § 103 rejection is respectfully solicited.

Conclusion

Based on the above, independent Claims 1, 11, and 17 are patentable over the citations of record. The dependent claims are also submitted to be patentable for the reasons given above with respect to the independent claims and because each recite features which are patentable in its own right. Individual consideration of the dependent claims is respectfully solicited.

The other art of record is also not understood to disclose or suggest the inventive concept of the present invention as defined by the claims.

Hence, Applicant submits that the present application is in condition for allowance. Favorable reconsideration and withdrawal of the objections and rejections set forth in the above-noted Office Action, and an early Notice of Allowance are requested.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

If for some reason Applicant has not paid a sufficient fee for this response, please consider this as authorization to charge Ingrassia, Fisher & Lorenz, Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

INGRASSIA FISHER & LORENZ

Dated: 2/17/05

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